

REMARKS

Claims 1-3, 5-7, 15 and 17-26 are pending in the application. Claims 1-3, 5-7, 15 and 17, 18 and 20-25 are rejected. Claim 19 is objected to. Claim 26 is allowed. Claims 1 and 6 are canceled. Claims 2, 3, 5, 7, 15 and 17-21 have been amended to correct for dependency due to the cancellation of claim 1.

Claim 22 has been amended to change the amount of amide monomer in the polymer from 5 to 10 percent, based on total mole percent of the polymer. Support for this amendment is found at p. 3, lines 3-5 of the Description. Claim 22 has also been amended to limit the substrate to a particular Markush group found in canceled claim 6 and at p. 4, line 28 – p. 5, line 1 of the Description, with the exception of the textile and fabric substrates.

Accordingly, no new matter is submitted with this Reply.

Reply to the Rejection of Claims 1-3, 5-7, 15, 17, 18 and 20-25 under 35 U.S.C. § 102(b)/103(a)

The Examiner has rejected Claims 1-3, 5-7, 15, 17, 18 and 20-25 as being anticipated by, or, alternatively, rendered obvious in view of U.S. Patent No. 5,843,192 to Kirk *et al.* ("Kirk"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1-3, 5-7, 15, 17, 18 and 20-25 as being anticipated by Kirk.

As previously indicated, Kirk teaches a composition useful in a washing process containing at least one vinyl amide polymer. The vinyl amide polymer can be formed so that it contains less than three (3) weight percent (most preferably 0 to 0.5 weight percent) of one or more optional acrylamide monomers such as N,N-dimethyl acrylamide. Only polymers formed from vinyl amide monomers (N-vinyl formamide (NVF) or N-vinyl-N-methyl acetamide (NVA)) and vinyl ester monomers (vinyl acetate) are exemplified (see vinyl amide polymer Examples 1-7, Tables 1-8 of Kirk).

Claim 22 (and therefore its dependent claims) has been amended to limit the acrylamide monomer used in forming the polymer to at least 10 mole percent of mono- or di-alkyl acrylamides, which is greater than the 3 weight percent maximum allowed in Kirk (col. 4, lines 39-55). The lowest molecular weight substituted acrylamide is methacrylamide (Mw = 85).

Sulfophenyl methallyl ether (SPME) is at least one of the highest if not the highest molecular weight anionic monomer ($M_w = 258$). 3 weight % (the maximum amount allowed by Kirk) of this copolymer (methacrylamide/SPME) is equivalent to 8.5 mole % methacrylamide. Accordingly, Kirk does not affect the novelty of the presently claimed invention.

Further, in contrast to Kirk, mono- or di-alkyl acrylamide polymers of the present invention are attached to the polymer backbone by a carbonyl group ($C=O$) and not by nitrogen linkages as is the case with polyvinyl amide polymers as taught by Kirk. Therefore, for the purpose of a 102 rejection, Kirk does not teach with specificity each and every element of the claimed invention.

From an obviousness standpoint, as shown above, less than 3 weight percent of acrylamide monomers used to form the vinyl amide polymer of Kirk is not equivalent to 10 to 100 mole percent of acrylamide monomer units as claimed in independent claim 22 of the present invention. Kirk states that only 0 to 0.5 weight % of the acrylamide monomer is preferred in its polymer, and provides no examples of polymers that include acrylamide monomers, effectively teaching away from the use of acrylamides in its washing compositions.

For at least these reasons, Kirk does not provide motivation to one skilled in the art to modify its polymer to achieve the polymer of the presently claimed invention, and therefore cannot be said to render the presently claimed invention unpatentable.

It is believed that these remarks overcome the Examiner's rejection of claims 1-3, 5-7, 15, 17, 18 and 20-25 as being anticipated by Kirk under 35 U.S.C. § 102(b) or, alternatively, rendered obvious in view of Kirk under 35 U.S.C. § 103(a). Withdrawal of the rejection is respectfully requested.

Reply to the Rejection of Claims 1-3, 5, 6, 8, 15, 17, 18 and 20-25 under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1-3, 5, 6, 8, 15, 17, 18 and 20-25 as being anticipated by European Patent Application No. 0 634 486 A1 to Kirk *et al.* ("Kirk 2"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1-3, 5, 6, 8, 15, 17, 18 and 20-25 as being anticipated by Kirk 2.

Kirk 2 is directed towards a process for preventing dye deposition onto fabrics by means of a dye deposition agent. The dye deposition agent includes a thickener, an aryl sulfonic acid condensate, a polycarboxylic dispersant, or an acrylamide-containing polymer (Abstract).

The acrylamide-containing polymer useful in the dye deposition agent of Kirk 2 is "formed from (1) at least one acrylamide or N-substituted acrylamide monomer, and optionally (2) one or more vinyl monomers" (p. 11, lines 21-41). Vinyl monomers include C₁ to C₆ alkyl (meth)acrylate and hydroxyalkyl (meth)acrylate, as well as vinyl monomers substituted with carboxylic acid (p. 11, lines 42-47). Preferred are dimethylacrylamide, methyl acrylamide, acrylamide and mixtures thereof as the acrylamide monomer, and non-ionic vinyl monomers such as hydroxyalkyl (meth)acrylate or alkyl (meth)acrylate (p. 12, lines 21-24).

Kirk 2 states that its acrylamide-containing polymer is useful as a dye deposition inhibiting agent for fabrics when the polymer is formed from (1) about 50-100 weight percent of acrylamide or N-substituted acrylamide monomer and (2) 0-50 weight percent vinyl monomer (p. 12, lines 18-21). Example 15 illustrates an acrylamide polymer formed from 80 wt. % N,N-dimethylacrylamide and 20 wt. % of nonionic hydroxyethyl methacrylate. No other monomer is taught or suggested for use in the acrylamide copolymer of Kirk 2.

Independent claim 22 has been amended to limit the substrates that the polymer is applied to. Kirk 2 is directed towards anti-dye deposition on fabrics. Fabric is not included in the list of substrates defined in claim 22. Therefore, as Kirk 2 does not teach or suggest with specificity each and every element of the claimed invention, Kirk 2 cannot be said to anticipate the presently claimed invention.

It is believed that these remarks overcome the Examiner's rejection of claims 1-3, 5, 6, 8, 15, 17, 18 and 20-25 as being anticipated by Kirk 2 under 35 U.S.C. § 102(b). Withdrawal, therefore, of the rejection is respectfully requested.

Reply to the Rejection of Claim 7 under 35 U.S.C. § 103(a)

The Examiner has rejected Claim 7 as being unpatentable over Kirk 2. For the following reasons, Applicants respectfully traverse the Examiner's rejection of claim 7 as being unpatentable over Kirk 2.

As noted above, independent claim 22 has been amended to limit the substrate to only those substances specified within its Markush group. Kirk 2 is directed towards polymeric compositions for use in anti-dye deposition on fabrics. Kirk 2 makes no reference to the use of its polymer on other substrates. Therefore, Kirk 2 provides no motivation to one skilled in the art to take the polymer of Kirk 2 and apply it to protect those substrates claimed in the presently claimed invention.

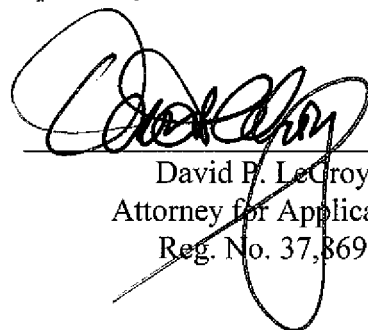
Claim 7 depends from claim 22, which limits the types of substrates that the polymeric composition can be applied to. As claim 22 is not obvious in view of Kirk 2, neither is claim 7.

For at least these reasons, Kirk cannot be said to render the presently claimed invention unpatentable. It is believed that these remarks overcome the Examiner's rejection of claim 7 as being rendered obvious in view of Kirk under 35 U.S.C. § 103(a). Withdrawal of the rejection is respectfully requested.

Based on the above amendments and remarks, allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Respectfully submitted,

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